

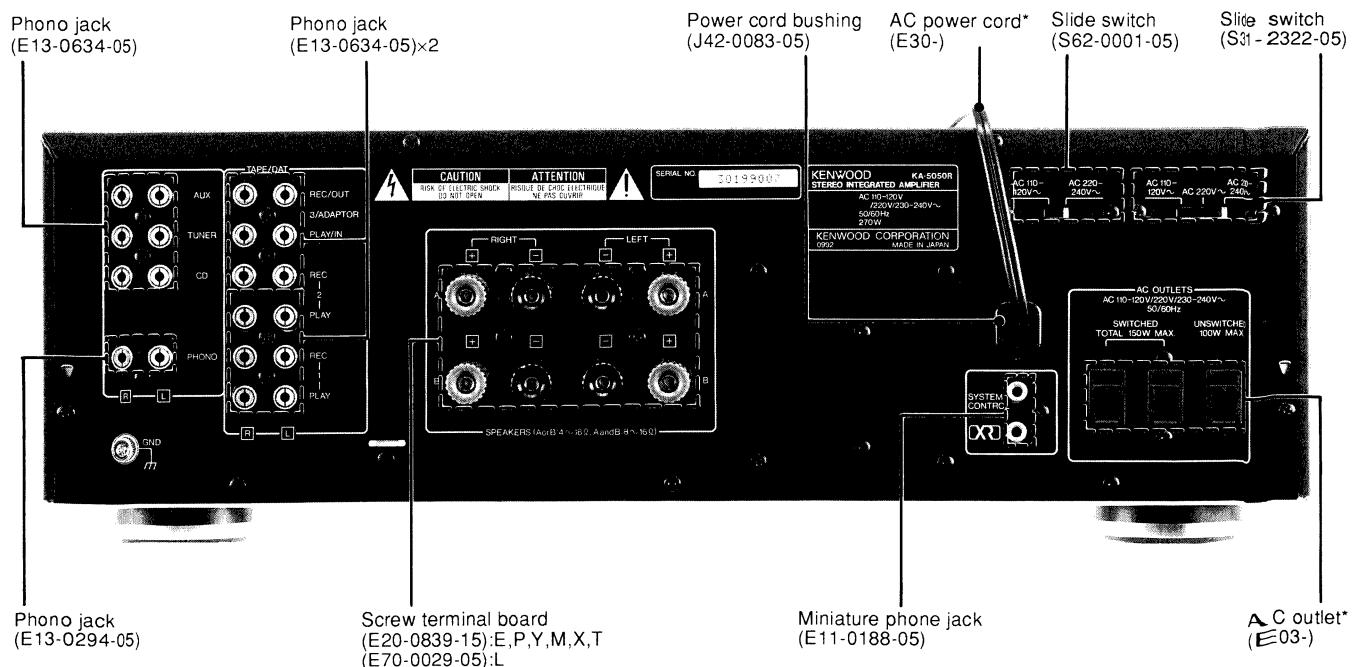
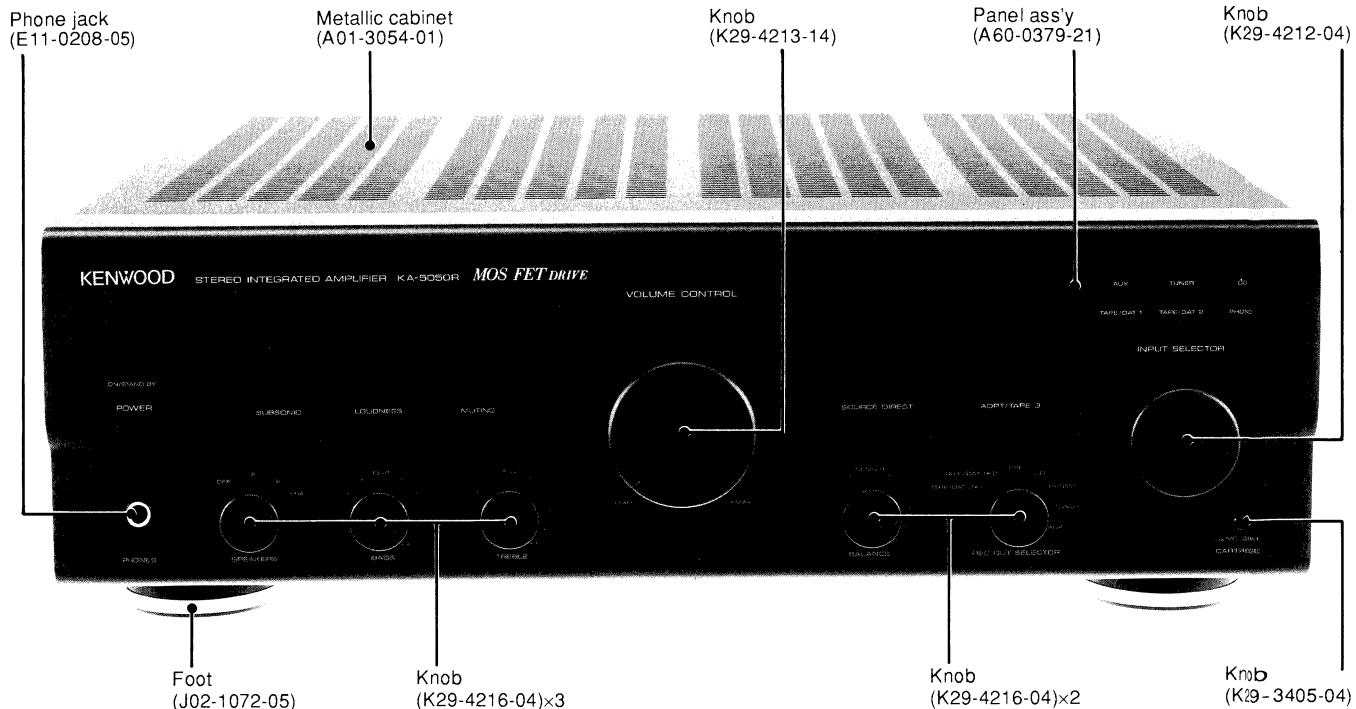
STEREO INTEGRATED AMPLIFIER

# KA-5050R

## SERVICE MANUAL

# KENWOOD

© 1993-3 PRINTED IN JAPAN  
B51-4708-00 (S) 2804



\* Refer to parts list in page 23.

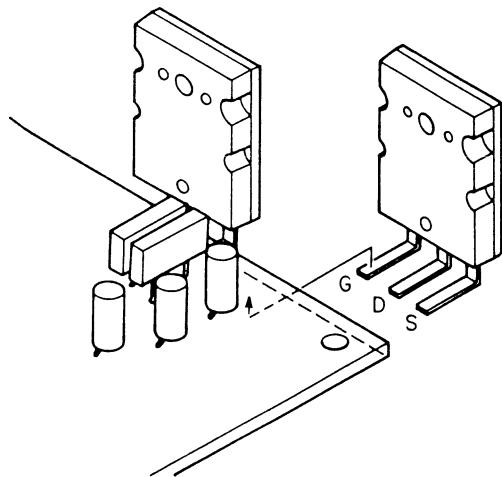
# KA-5050R

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## NOTES

- Handle the power MOS-FETs carefully. They are easily destroyed by static electricity.
- When soldering, use a high-insulation soldering iron.
- When soldering, solder the gate (G) first.



- When replacing the power MOS-FET, there are differences according to the ranks, so please replace Pch (or Nch) as a pair of identical rank.
- The parts stock for parts of the same rank as Pch (or Nch) come in packs of pairs. When ordering a quantity of 1, one pack (containing 2) will be delivered in one bag. Please order as 2SK1529LBP4, 2SJ200LBP4. There is no need to adjust the ranks of Pch and Nch, and there is no need to adjust the ranks of the left channel and right channel either.
- Since the KA-5050R is a FET amp, even with no signal, nearly as much heat is generated as for maximum output. When piling sets on top of each other, put this amp at the top. Placing any other unit on top of this amp interferes with the heat release and can cause harm, so do not do this.

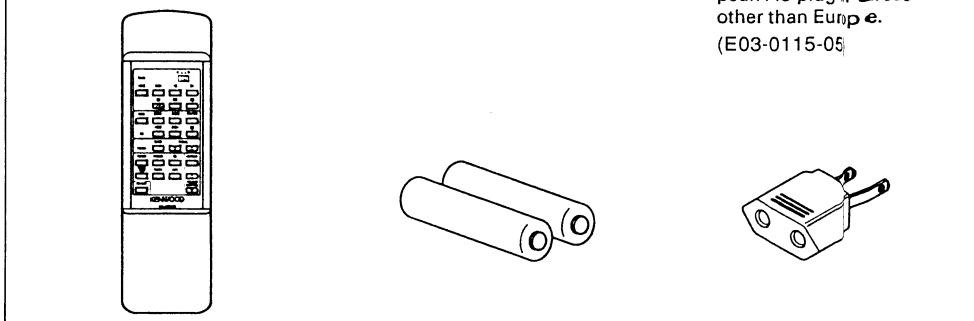
## ACCESSORIES

### INSTRUCTION MANUAL

B60-1131-00	ENGLISH	E, L, P
B60-1132-00	FRENCH	
B60-1133-00	CHINESE	M
B60-1134-00	SPANISH	E, M
B60-1135-00	GE, DU, IT	E, L

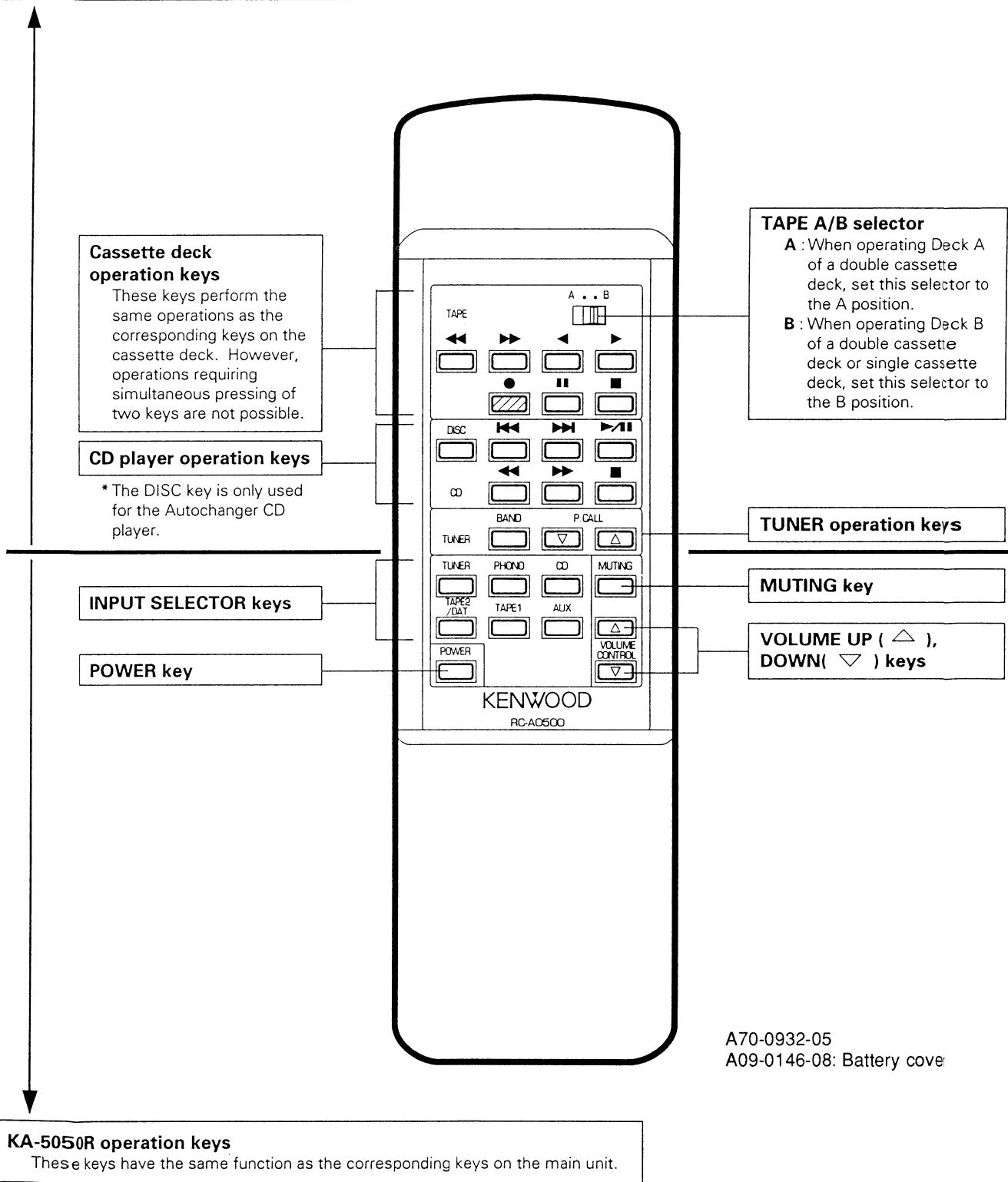
### Accessories

• Remote control unit .... 1 (A70-0932-05)	..... 1	• Batteries(R6/SUM-3/"AA") (A09-0146-08): Battery cover	..... 2
• AC plug adapter ..... 1 (Except for some areas) For the unit with a European AC plug in areas other than Europe. (E03-0115-05)			



## REMOTE CONTROL OPERATION

Operation keys for KENWOOD components connected by system control cords

A70-0932-05  
A09-0146-08: Battery cover

# KA-5050R

## ADJUSTMENT/REGLAGE/ABGLEICH

### ADJUSTMENT

No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	AMPLIFIER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
Unless otherwise specified, set the respective switches as follows: POWER: ON SPEAKER: B REC OUT: OFF SELECTOR: PHONO							
1	IDLE CURRENT	—	Connect a DC voltmeter across CN3 Pin 1-2 CN3 Pin 3-4 CN4 Pin 1-2 CN4 Pin 3-4	VOLUME: 0	VR1,3 (L) VR2,4 (R)	10 mV	(a)

### REGLAGES

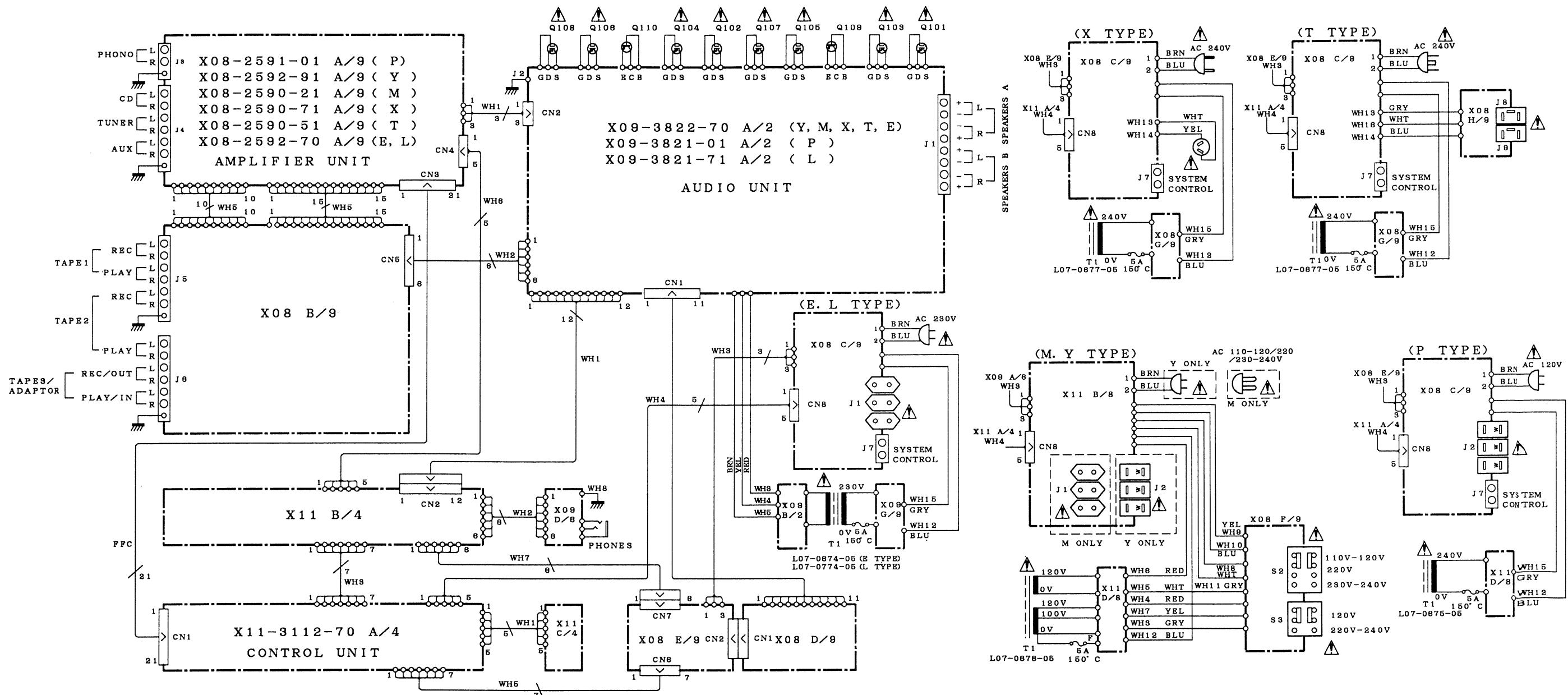
N°	ITEM	REGLAGE DE L'ENTREE	REGLAGE DE LA SORTIE	REGLAGE DE L'AMPLIFICATEUR	POINT DE L'ALIGNEMENT	ALIGNER POUR	FIG.
Sauf indication contraire, régler comme suit les commandes respectives POWER: ON SPEAKER: B REC OUT: OFF SELECTOR: PHONO							
1	COURANT DE PLARISATION	—	Connecter un voltmètre de CC SUR CN3 Pin 1-2 CN3 Pin 3-4 CN4 Pin 1-2 CN4 Pin 3-4	VOLUME: 0	VR1,3 (G) VR2,4 (D)	10 mV	(a)

### ABGLEICH

NR.	GEGENSTAND	EINGANGS-EINSTELLUNG	AUSGANGS-EINSTELLUNG	VORSTÄRKER-EINSTELLUNG	ABGLEICH-PUNKTE	ABGLEICHEN FÜR	ABB.
Wenn nicht anders angegeben, die einzelnen Schalter wie folgt einstellen: POWER: ON SPEAKER: B REC OUT: OFF SELECTER: PHONO							
1	LEERLAUFSTROM	—	Einen Gleichspannungsmesser über CN3 Pin 1-2 CN3 Pin 3-4 CN4 Pin 1-2 CN4 Pin 3-4 anschließen.	VOLUME: 0	VR1, 3(L) VR2, 4(R)	10 mV	(a)

KA-5050R KA-5050R

## WIRING DIAGRAM



A

B

C

D

E

F

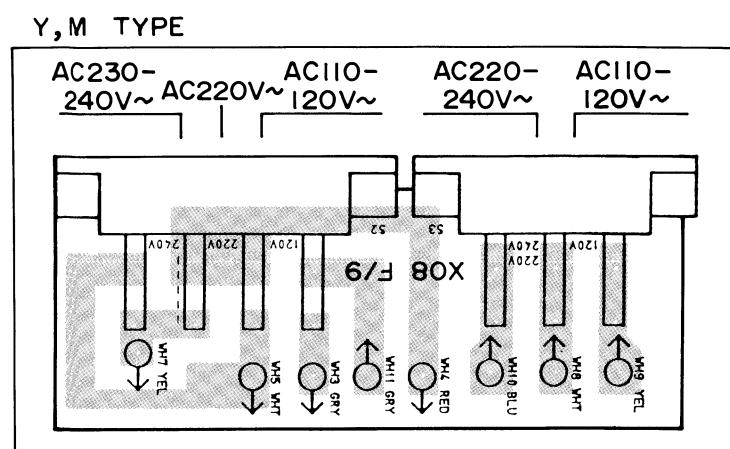
G

H

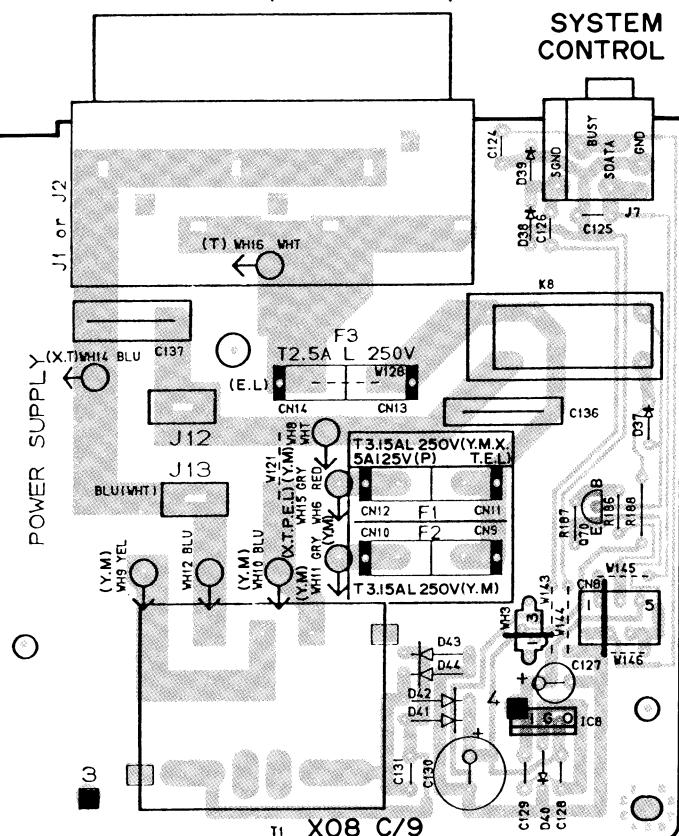
I

J

# PC BOARD (Component side view)



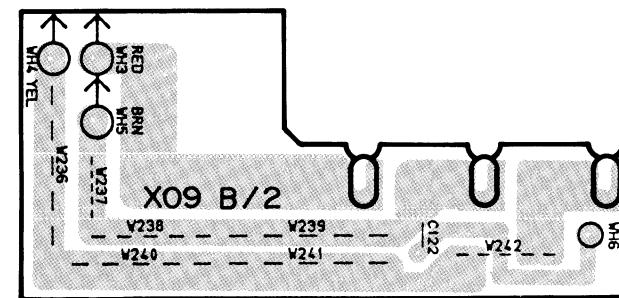
AC OUTLETS  
AC110V/220V/230-240V~  
50/60Hz  
UNSWITCHED SWITCHED  
100W MAX. TOTAL 150W MAX.



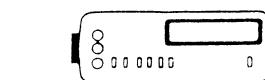
# PC BOARD (Component side view)

AUDIO UNIT (X09-382X-XX)

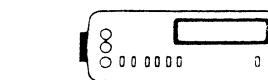
FRONT



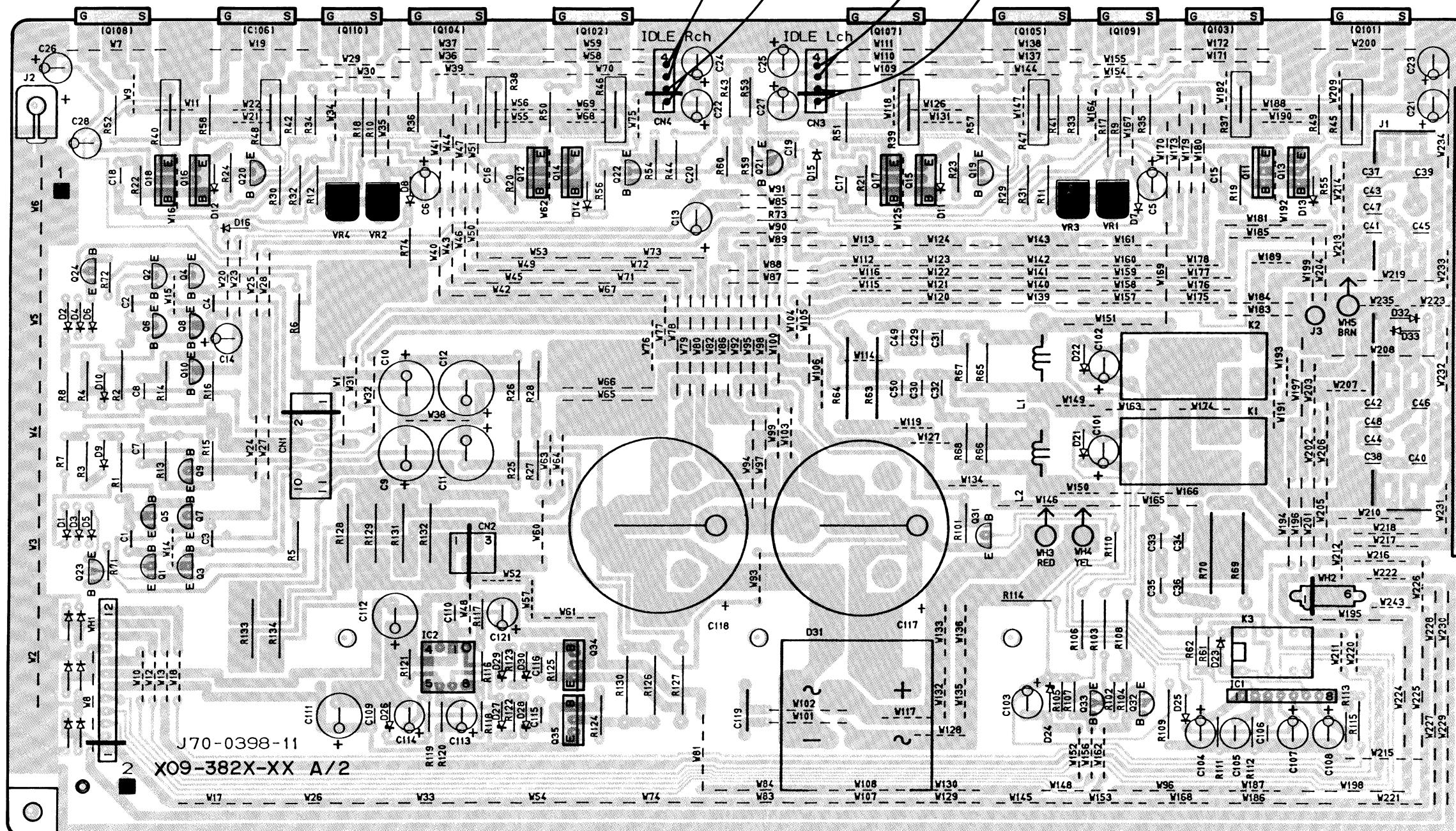
(a) IDLE CURRENT  
: 10 mV



(a) IDLE CURRENT  
: 10 mV



DC Voltmeter



SPEAKERS

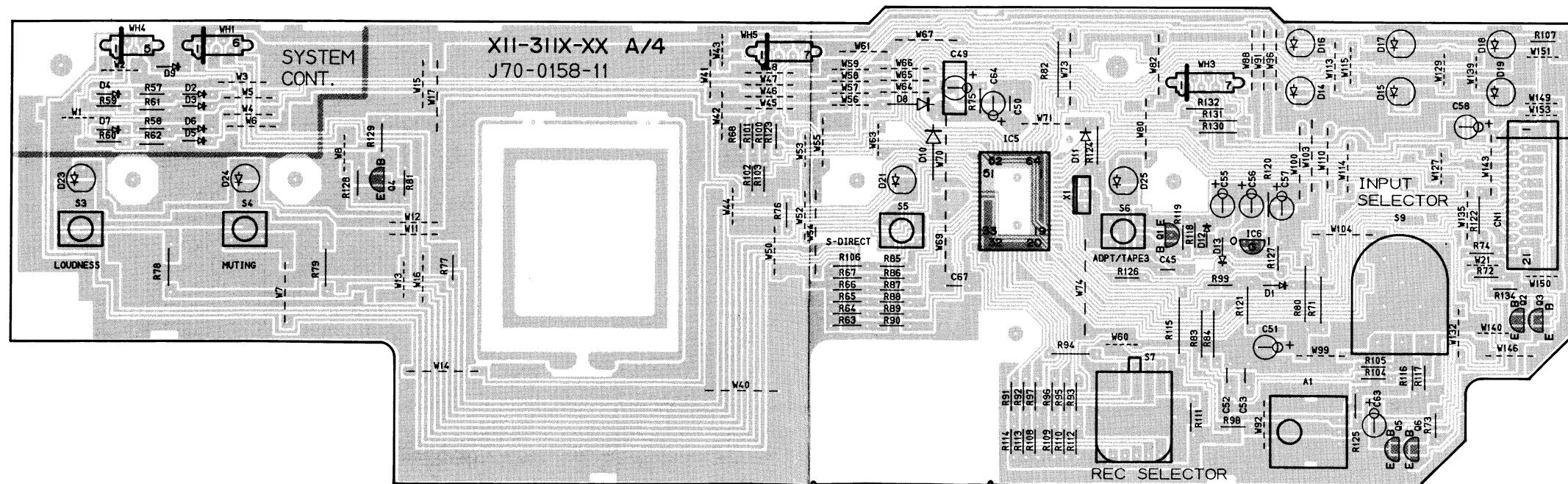
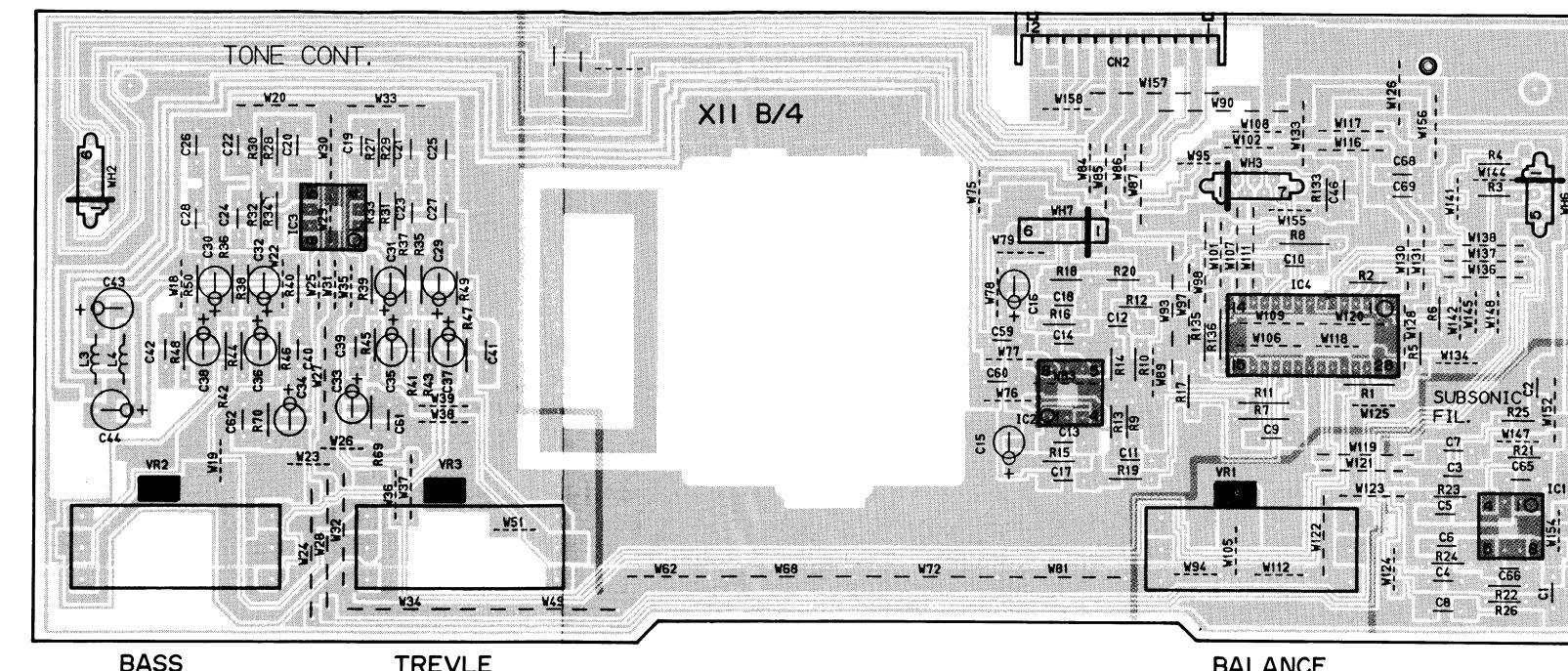
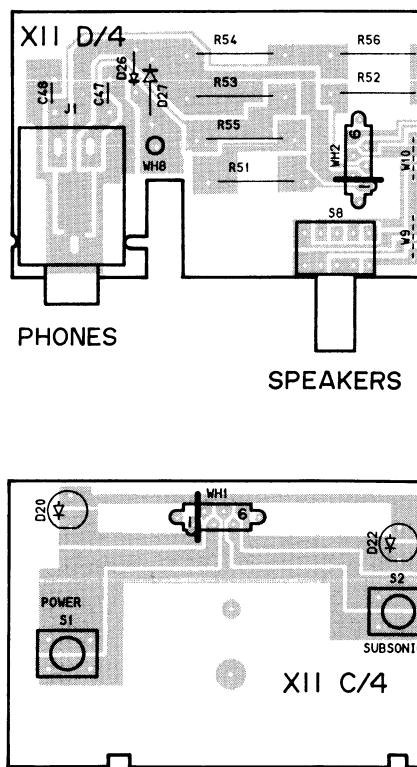
(A or B : 4~16Ω, A and B : 8~16Ω)

Refer to the schematic diagram for the values of resistors and capacitors.

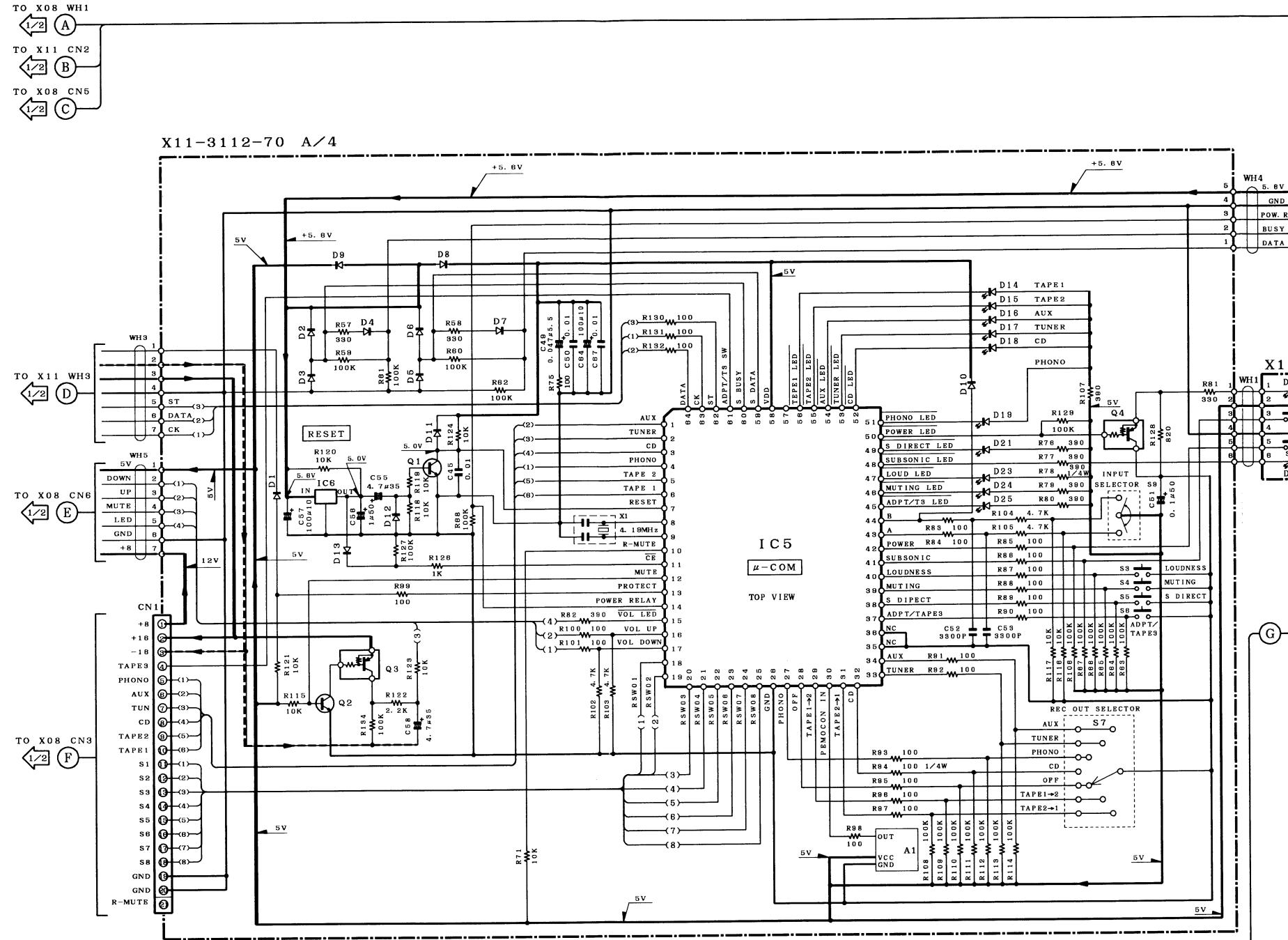
U

## PC BOARD (Component side view)

## CONTROL UNIT (X11-3112-70)



Refer to the schematic diagram for the values of resistors and capacitors.



X11-3112-70 A/4, C/4

IC5 : μPD75104GF-778  
IC6 : PST529D

Q1, 2 : 2SC1740S (Q, R) or  
2SC3811A (Q, R)  
Q3, 4 : DTA124ES or UN4112

D1	: 1SS181 or HS
D2~13	: 1SS183 or HS
D14~19	: B30-1281-05
21~25	
D20	: B30-1280-05

X08-259X-XX C/

IC8 : TA7805S or UPC7805HF

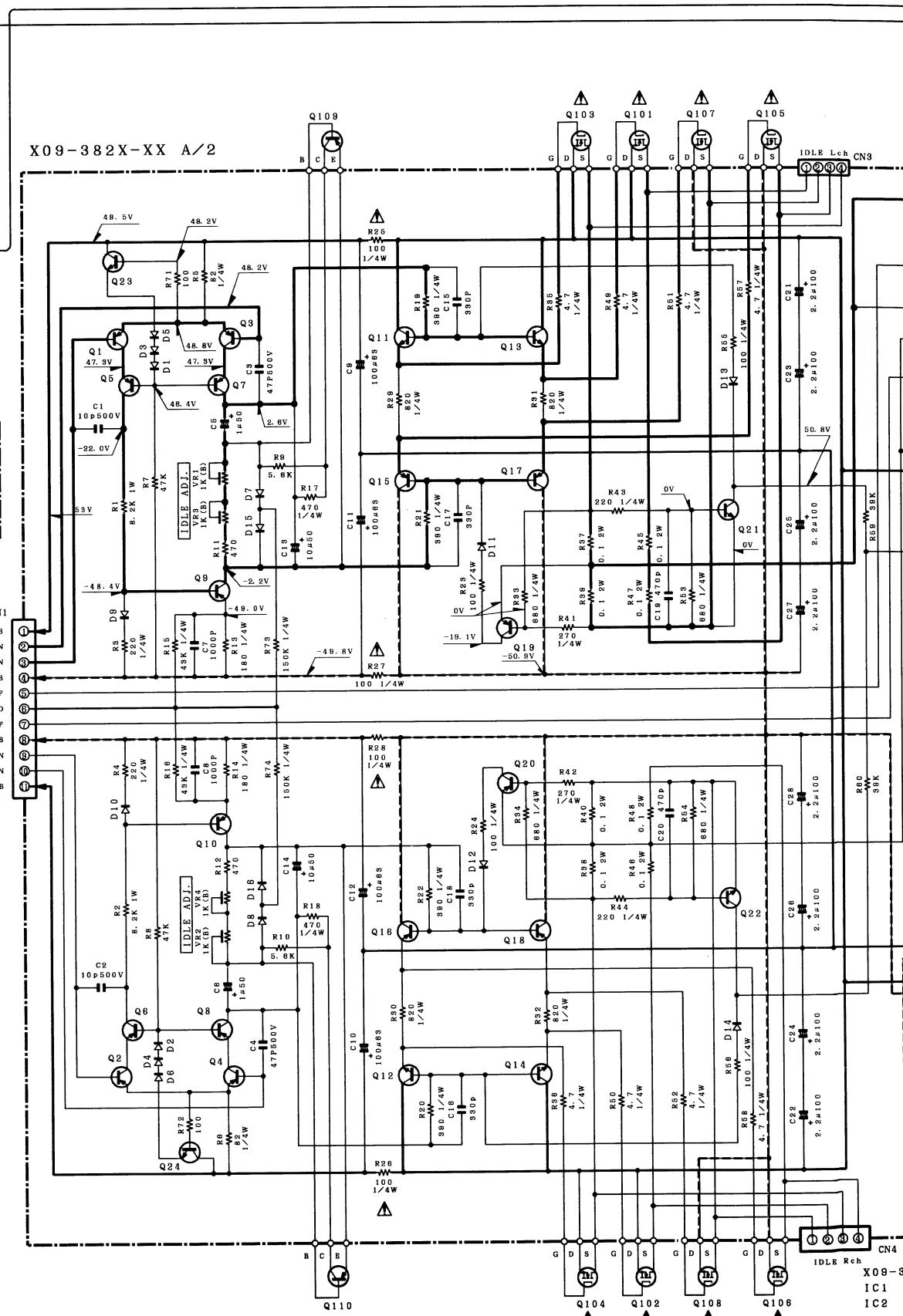
D 87~40 : 1SS133 or HSS104  
D 41~44 : S5688B

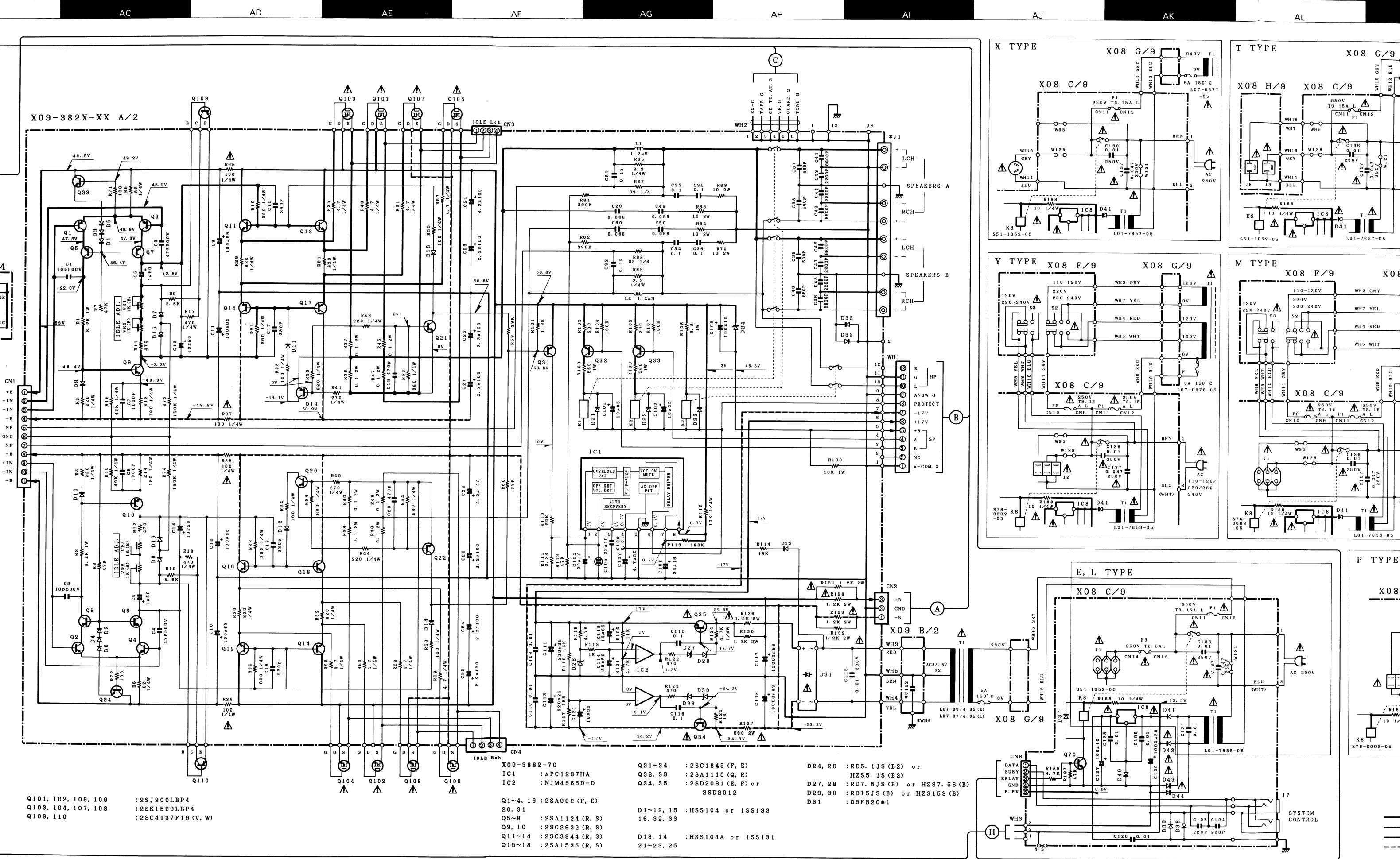
X08-259X-XX

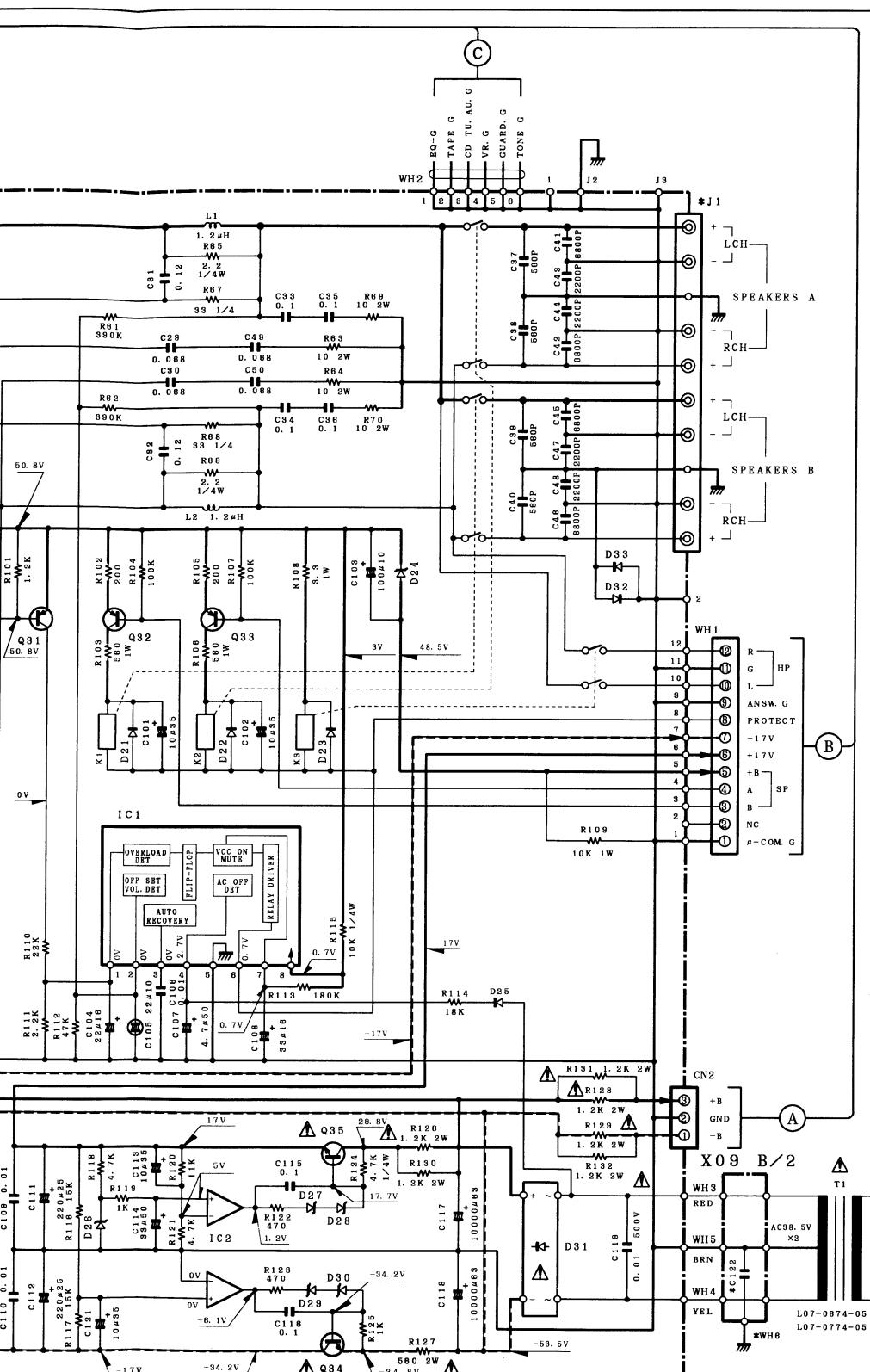
COUNTRY	ABB	REF. NO	
		UNIT	NAME
EUROPE	E	2-70	
NORTHERN EUROPE	L	2-70	
EUROPE	Y	2-91	
GENERAL MARKET	M	0-21	
AUSTRALIA	X	0-71	
ENGLAND	T	0-51	
CANADA	P	1-01	

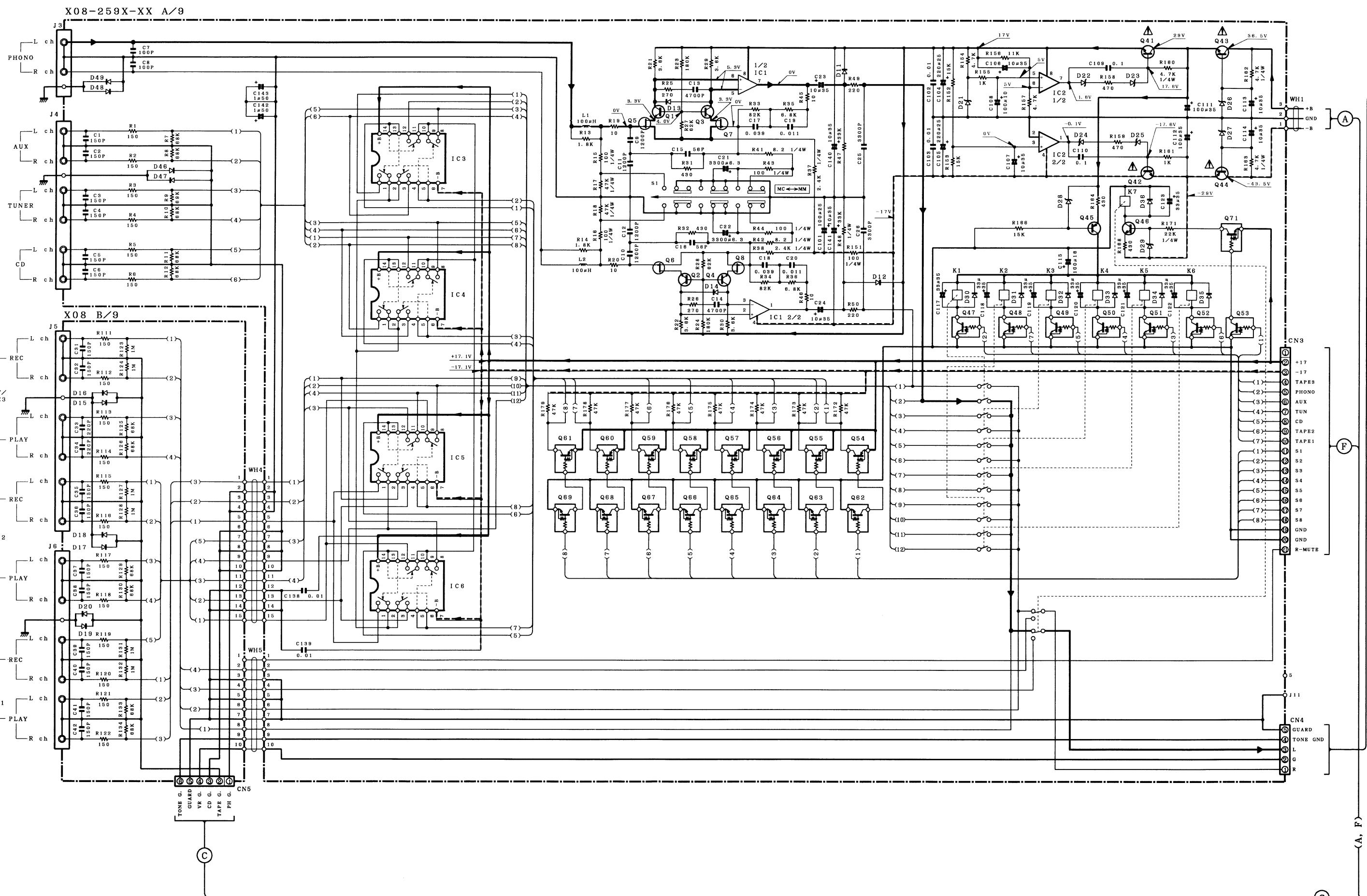
X09-382X-XX A/2

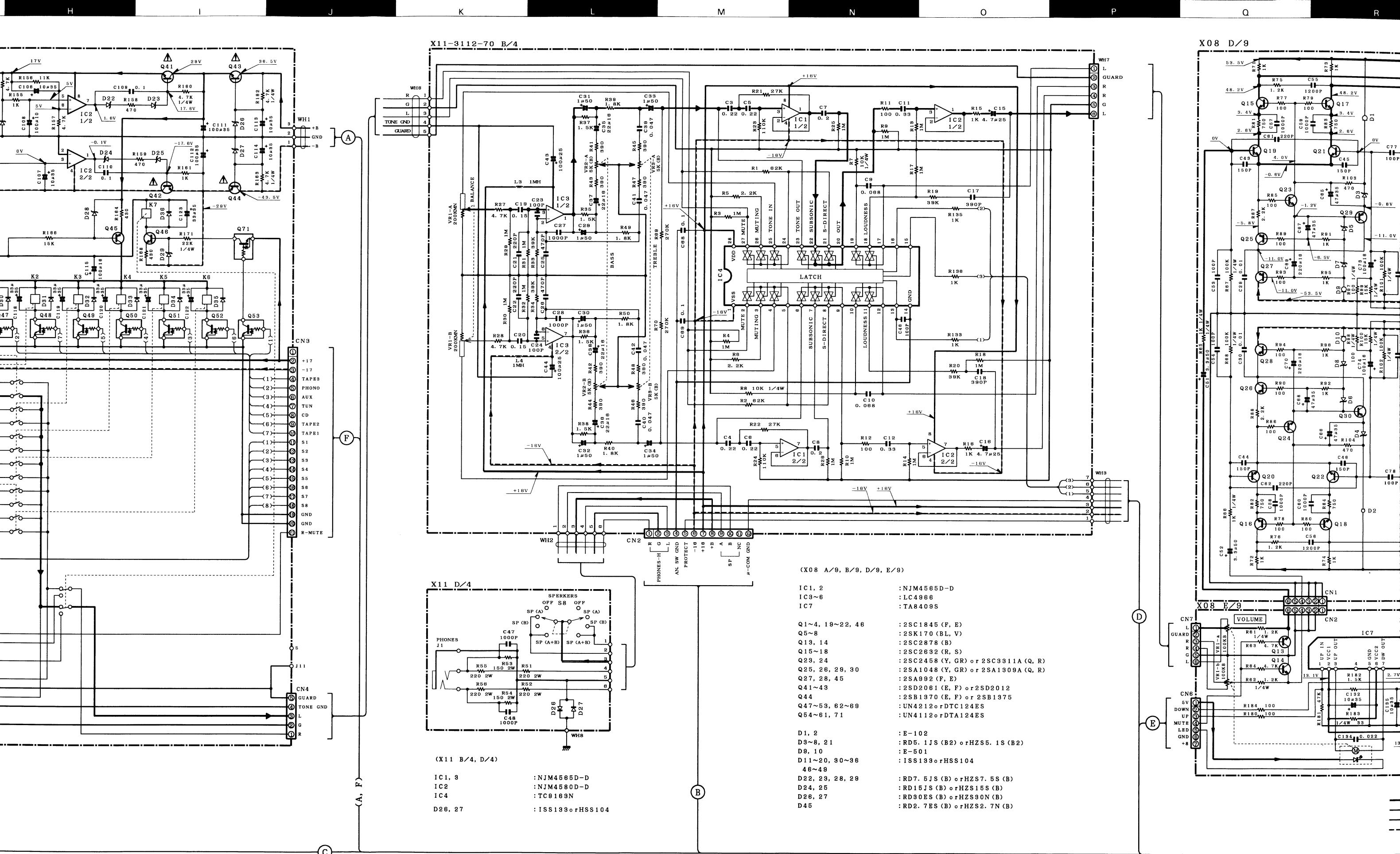
COUNTRY	ABB	REF. NO.		C122	J1	WH6
		UNIT	NAME			
EUROPE	E	2-70		0.01	E20-0838-15	YES
ENGLAND	T	2-70		0.01	E20-0838-15	YES
EUROPE	Y	2-70		0.01	E20-0838-15	YES
GENERAL MARKET	M	2-70		0.01	E20-0838-15	YES
AUSTRALIA	X	2-70		0.01	E20-0838-15	YES
NORTHRN EUROPE	L	1-71		0.01	E70-0029-05	YES
CANADA	P	1-01		NO	E20-0838-15	NO

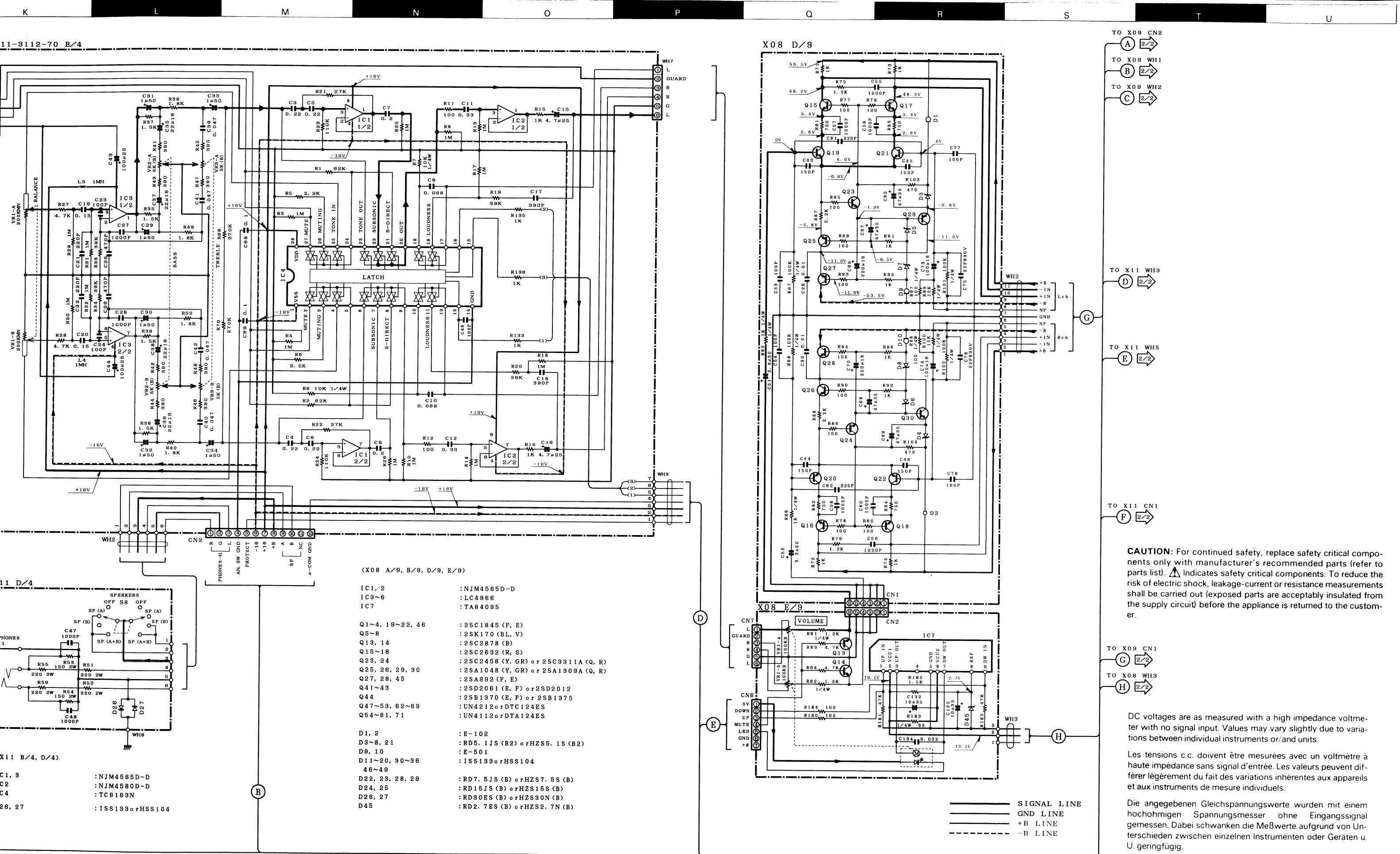






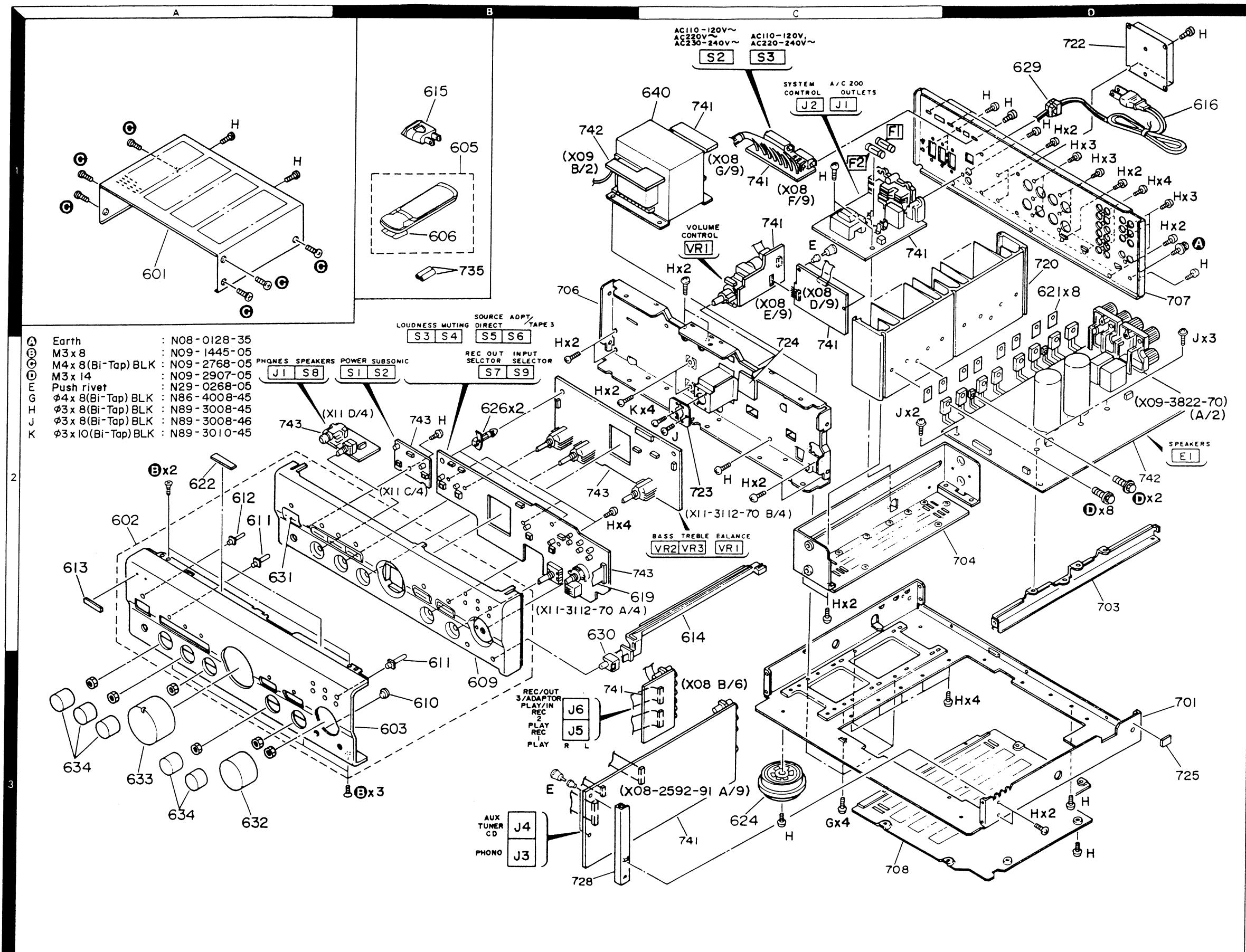






# KA-5050R KA-5050R

## EXPLODED VIEW



## PARTS LIST

\* New Parts

Parts without Parts No. are not supplied.

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

Ref. No.	Address	New Parts	Parts No.	Description	Destination	Remarks
参照番号	位置	新	部品番号	部品名／規格	仕向	備考
<b>KA-5050R</b>						
601	1A	*	A01-3054-01	METALLIC CABINET		
602	2A	*	A60-0379-21	PANEL ASSY		
603	3B	*	A60-0380-02	PANEL		
605	1B	*	A70-0932-05	REMOTE CONTROLLER ASSY		
606	1B	*	A09-0146-08	BATTERY COVER		
609	3B		B01-0482-01	PANEL ESCUTCHEON		
610	2B		B11-0237-14	COLOR FILTER		
611	2A, 3B		B12-0163-04	INDICATOR		
612	2A		B12-0232-04	INDICATOR		
613	2A		B43-0287-04	KENWOOD BADGE		
-			B46-0094-03	WARRANTY CARD	Y	
-			B46-0095-03	WARRANTY CARD	Y	
-			B46-0096-33	WARRANTY CARD	X	
-			B46-0121-23	WARRANTY CARD	P	
-			B46-0122-23	WARRANTY CARD	EL	
-			B46-0143-13	WARRANTY CARD	T	
-			B58-0513-04	CAUTION CARD (PRESET220-240)	Y	
-		*	B60-1131-00	INSTRUCTION MANUAL (ENGLISH)	ELP	
-		*	B60-1132-00	INSTRUCTION MANUAL (FRENCH)		
-		*	B60-1133-00	INSTRUCTION MANUAL (CHINESE)	M	
-		*	B60-1134-00	INSTRUCTION MANUAL (SPANISH)	EM	
-		*	B60-1135-00	INSTRUCTION MANUAL (GE, DU, IT)	EL	
614	2C		D21-1658-03	EXTENSION SHAFT		
▲ 615	1B		E03-0115-05	AC PLUG ADAPTER	M	
▲ 616	1D		E30-0459-05	AC POWER CORD	ELM	
▲ 616	1D		E30-0812-05	AC POWER CORD	Y	
▲ 616	1D		E30-0974-05	AC POWER CORD	P	
▲ 616	1D		E30-2714-05	AC POWER CORD	X	
▲ 616	1D		E30-2718-05	AC POWER CORD	T	
619	2C		E39-0148-05	FLAT CABLE		
▲ -			E03-0141-05	AC OUTLET	X	
621	1D		F20-1322-05	INSULATING BOARD		
622	2A	*	G10-0185-04	NON-WOVEN FABRIC		
-		*	H50-0605-04	ITEM CARTON CASE	ELPYMX	
-		*	H50-0629-04	ITEM CARTON CASE	T	
-		*	H10-5166-12	POLYSTYRENE FOAMED FIXTURE (L)	ELPYMX	
-		*	H10-5167-02	POLYSTYRENE FOAMED FIXTURE (R)	ELPYMX	
-		*	H10-5501-02	POLYSTYRENE FOAMED FIXTURE (L)	T	
-		*	H10-5502-02	POLYSTYRENE FOAMED FIXTURE (R)	T	
-		*	H25-0225-04	PROTECTION BAG (850X450X0.03)	ELPYMX	
-		*	H25-0232-04	PROTECTION BAG (235X350X0.03)	ELPYMX	
-		*	H25-0651-04	PROTECTION BAG (0232 PRINTED)	T	
-		*	H25-0654-04	PROTECTION BAG (0225 PRINTED)	T	
624	3C		J02-1072-05	FOOT		
626	2B		J19-3328-15	UNIT HOLDER		
629	1D		J42-0083-05	POWER CORD BUSHING		
-			J61-0307-05	WIRE BAND		
630	2B		K29-3405-04	KNOB CARTRIDGE (MM/MC)		
631	2A		K29-4210-03	KNOB POWER		
632	3A		K29-4212-04	KNOB INPUT SELECTOR		

L:Scandinavia

K:USA

P:Canada

Y:PX(Far East, Hawaii)

T:England

E:Europe

Y:AAFES(Europe)

X:Australia

M:Other Areas

▲ indicates safety critical components.

## PARTS LIST

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Ref. No.	Address	New Parts	Parts No.	Description	Destination	Remarks
参照番号	位置	新	部品番号	部品名／規格	仕向	備考
<b>PREAMPLIFIER UNIT (X08-259X-XX)</b>						
633	3A	*	K29-4213-14	KNOB VOLUME		
634	3A		K29-4216-04	KNOB SP, TONE, BAL, REC OUT SEL		
▲ 640	1C	*	L07-0674-05	POWER TRANSFORMER	E	
▲ 640	1C	*	L07-0675-05	POWER TRANSFORMER	P	
▲ 640	1C	*	L07-0676-05	POWER TRANSFORMER	YM	
▲ 640	1C	*	L07-0677-05	POWER TRANSFORMER	XT	
▲ 640	1C	*	L07-0774-05	POWER TRANSFORMER	L	
A	1D		N08-0128-35	BINDING POST (EARTH)		
B	2A, 3B		N09-1445-05	SET SCREW (M3X8)		
C	1A		N09-2768-05	SEMS (TAPITIE SCREW)(4X8)		
D	2D		N09-2907-05	SEMS (TAPITIE SCREW)(3X14)		
E	3B, 1C		N29-0268-05	PUSH RIVET		
G	1D, 3D		N86-4008-45	BINDING HEAD TAPITIE SCREW		
H	2C, 2D		N89-3008-45	BINDING HEAD TAPITIE SCREW		
J	2C		N89-3008-46	BINDING HEAD TAPITIE SCREW		
K	3C		N89-3010-45	BINDING HEAD TAPITIE SCREW		
C1	-6		CF92FV1H151K	MF	150PF	K
C7	,8		CF92FV1H101K	MF	100PF	K
C9	-12		CF92FV1H122J	MF	1200PF	J
C13	,14		CF92FV1H472J	MF	4700PF	J
C15	,16		CC45FSL1H560J	CERAMIC	56PF	J
C17	,18		CF92FV1H393J	MF	0.039UF	J
C19	,20		CF92FV1H113J	MF	0.011UF	J
C21	,22		C90-1951-05	ELECTRO	3300UF	6.3WV
C23	,24		CE04KW1V100M	ELECTRO	10UF	35WV
C25	,26		CF92FV1H332J	MF	3300PF	
C29	,30		CF92FV1H103J	MF	0.010UF	J
C31	,32		CF92FV1H151K	MF	150PF	K
C33	,34		CF92FV1H221K	MF	220PF	K
C35	,46		CF92FV1H151K	MF	150PF	K
C51	,52		CE04KW1H3R3M	ELECTRO	3.3UF	50WV
C53	,54		CF92FV1H101K	MF	100PF	K
C55	,56		CF92FV1H122J	MF	1200PF	J
C57	,60		CF92FV1H102J	MF	1000PF	J
C61	,62		CF92FV1H221K	MF	220PF	K
C65	,68		CE04KW1V470M	ELECTRO	47UF	35WV
C69	,70		CE04KW1C221M	ELECTRO	220UF	16WV
C73	,74		C90-1917-05	ELECTRO	100UF	16WV
C75	,76		C91-1466-05	FILM	22PF	K
C77	,78		CF92FV1H101K	MF	100PF	K
C101			CE04KW1E101M	ELECTRO	100UF	25WV
C102, 103			CF92FV1H103J	MF	0.010UF	J
C104, 105			CE04KW1E221M	ELECTRO	220UF	25WV
C106, 107			CE04KW1V100M	ELECTRO	10UF	35WV
C108			CE04KW1A101M	ELECTRO	100UF	10WV
C109, 110			CF92FV1H104J	MF	0.10UF	J
C111, 112			CE04KW1V101M	ELECTRO	100UF	35WV
C113, 114			CE04KW1V100M	ELECTRO	10UF	35WV
C115			CE04KW1C101M	ELECTRO	100UF	16WV
C117-123			CE04KW1V330M	ELECTRO	33UF	35WV
C124, 125			CC45FSL1H221J	CERAMIC	220PF	J
C126			CK45FF1H103Z	CERAMIC	0.010UF	Z
C127			CE04KW1A101M	ELECTRO	100UF	10WV

## PARTS LIST

x New Parts

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Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格			Desti- nation 仕向	Re- marks 備考
C128, 129			CF92FV1H103J	MF	0.010UF	J		
C130			CE04KW1E102M	ELECTRO	1000UF	25WV		
C131			CF92FV1H103J	MF	0.010UF	J		
C132			CE04KW1V100M	ELECTRO	10UF	35WV		
C134			CF92FV1H223J	MF	0.022UF	J		
C135			CE04KW1V100M	ELECTRO	10UF	35WV		
▲ C136			C91-1439-05	FILM	0.01UF	250VAC		
C137			C91-1444-05	MF	0.047UF	250VAC		
C138, 139			CF92FV1H103J	MF	0.010UF	J		
C140, 141			CE04KW1V100M	ELECTRO	10UF	35WV		
C142, 143			CE04KW1H010M	ELECTRO	1.0UF	50WV		
▲ J1		*	E03-0143-05	AC OUTLET			ELM	
▲ J2			E03-0142-05	AC OUTLET			PY	
J3			E13-0294-05	PHONE JACK (1P)				
J4 -6			E13-0634-05	PHONE JACK (3P)				
J7			E11-0188-05	MINIATURE PHONE JACK				
▲ J8 , 9			E03-0109-05	AC OUTLET			T	
▲ F1			F04-5022-05	FUSE (UL)	(125V 5A UL)		P	
▲ P1			F05-3121-05	FUSE (SEMKO)	(250V T3.15A)		ELXT	
▲ F1 , 2			F05-3121-05	FUSE (SEMKO)	(250V T3.15A)		YM	
▲ F3			F05-2525-05	FUSE (SEMKO)	(250V T2.5A)		EL	
-			J11-0098-05	WIRE CLAMPER				
CN9 -12			J13-0075-05	FUSE CLIP			YM	
CN11-14			J13-0075-05	FUSE CLIP			EL	
CN11, 12			J13-0075-05	FUSE CLIP			PXT	
L1 , 2			L40-1011-47	SMALL FIXED INDUCTOR(100UH, K)				
▲ T1			L01-7651-05	POWER TRANSFORMER			P	
▲ T1			L01-7653-05	POWER TRANSFORMER			ELYM	
▲ T1			L01-7657-05	POWER TRANSFORMER			XT	
R33 , 34			RN14BK2C8202FTS	RN	82.0K	F 1/6W		
R35 , 36			RN14BK2C6801FTS	RN	6.80K	F 1/6W		
R99 , 100			RN14BK2B1502FTS	RN	15.0K	F 1/4W		
R101, 102			RN14BK2B1003FTS	RN	100K	F 1/4W		
R151			RD14AB2E101JTS	FL-PROOF RD	100	J 1/4W		
R160			RD14AB2E472JTS	FL-PROOF RD	4.7K	J 1/4W		
R162, 163			RD14AB2E472JTS	FL-PROOF RD	4.7K	J 1/4W		
R183			RD14AB2E330JTS	FL-PROOF RD	33	J 1/4W		
R188			RD14AB2E100JTS	FL-PROOF RD	10	J 1/4W		
VR1			R29-5059-05	POTENTIOMETER				
▲ K1 -7			S76-0027-05	MAGNETIC RELAY				
▲ K8			S51-1052-05	MAGNETIC RELAY			ELXT	
▲ K8			S76-0002-05	MAGNETIC RELAY			PY	
S1			S40-6036-05	PUSH SWITCH				
▲ S2			S31-2322-05	SLIDE SWITCH			YM	
▲ S3			S62-0001-05	SLIDE SWITCH			YM	
D1 , 2			E-102	CONSTANT CURRENT DIODE				
D3 -8			HZS5.1S(B2)	ZENER DIODE				
D3 -8			RD5.1JS(B2)	ZENER DIODE				
D9 , 10			E-501	CONSTANT CURRENT DIODE				
D11 -20			HSS104	DIODE				
D11 -20			1SS133					
D21			HZS5.1S(B2)	ZENER DIODE				

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# KA-5050R

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D21			RD5.1JS(B2)	ZENER DIODE		
D22 ,23			HZS7.5S(B)	ZENER DIODE		
D22 ,23			RD7.5JS(B)	ZENER DIODE		
D24 ,25			HZS15S(B)	ZENER DIODE		
D24 ,25			RD15JS(B)	ZENER DIODE		
D26 ,27			HZS30N(B)	ZENER DIODE		
D26 ,27			RD30ES(B)	ZENER DIODE		
D28 ,29			HZS7.5S(B)	ZENER DIODE		
D28 ,29			RD7.5JS(B)	ZENER DIODE		
D30 -40			HSS104	DIODE		
D30 -40			ISS133	DIODE		
D41 -44			S5688B	DIODE		
D45			HZS2.7N(B)	ZENER DIODE		
D45			RD2.7ES(B)	ZENER DIODE		
D46 -49			HSS104	DIODE		
D46 -49			ISS133	DIODE		
IC1 ,2			NJM4565D-D	IC(OP AMP X2)		
IC3 -6			LC4966	IC(CMOS LOGIC BILATERAL SW)		
IC7			TA8409S	IC(MOTOR CONTROL)		
IC8			TA7805S	IC(VOLTAGE REGULATOR/ +5V)		
IC8			UPC7805HF	IC(VOLTAGE REGULATOR/ +5V)		
Q1 -4			2SC1845(F,E)	TRANSISTOR		
Q5 -8			2SK170(BL)	FET		
Q5 -8			2SK170(V)	FET		
Q13 ,14			2SC2878(B)	TRANSISTOR		
Q15 -18			2SC2632(R,S)	TRANSISTOR		
Q19 -22			2SC1845(F,E)	TRANSISTOR		
Q23 ,24			2SC2458(Y,GR)	TRANSISTOR		
Q23 ,24			2SC3311A(Q,R)	TRANSISTOR		
Q25 ,26			2SA1048(Y,GR)	TRANSISTOR		
Q25 ,26			2SA1309A(Q,R)	TRANSISTOR		
Q27 ,28			2SA992(F,E)	TRANSISTOR		
Q29 ,30			2SA1048(Y,GR)	TRANSISTOR		
Q29 ,30			2SA1309A(Q,R)	TRANSISTOR		
Q41 -43		*	2SD2012	TRANSISTOR		
Q41 -43		*	2SD2061(E,F)	TRANSISTOR		
Q44		*	2SB1370(E,F)	TRANSISTOR		
Q44		*	2SB1375	TRANSISTOR		
Q45		*	2SA992(F,E)	TRANSISTOR		
Q46		*	2SC1845(F,E)	TRANSISTOR		
Q47 -53			DTC124ES	DIGITAL TRANSISTOR		
Q47 -53			UN4212	DIGITAL TRANSISTOR		
Q54 -61			DTA124ES	DIGITAL TRANSISTOR		
Q54 -61			UN4112	DIGITAL TRANSISTOR		
Q62 -69			DTC124ES	DIGITAL TRANSISTOR		
Q62 -69			UN4212	DIGITAL TRANSISTOR		
Q70			2SC2458(Y,GR)	TRANSISTOR		
Q70			2SC3311A(Q,R)	TRANSISTOR		
Q71			DTA124ES	DIGITAL TRANSISTOR		
Q71			UN4112	DIGITAL TRANSISTOR		
<b>AUDIO UNIT (X09-382X-XX)</b>						
C1 ,2		*	CC45FSL2H100D	CERAMIC	10PF	D
C3 ,4		*	CC45FSL2H470J	CERAMIC	47PF	J
C5 ,6			CE04KW1H1ROM	ELECTRO	1.0UF	50WV
C7 ,8			CF92FV1H102J	MF	1000PF	J

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C9 -12			CE04DW1J101M	ELECTRO	100UF	63WV		
C13 ,14			CE04KW1H100M	ELECTRO	10UF	50WV		
C15 -18			CF92FV1H331K	MF	330PF	K		
C19 ,20			CF92FV1H471J	MF	470PF	J		
C21 -28			CE04KW2A2R2M	ELECTRO	2.2UF	100WV		
C29 ,30			CF92FV1H683J	MF	0.068UF	J		
C31 ,32			CF92FV1H124J	MF	0.12UF	J		
C33 -36			CF92FV1H104J	MF	0.10UF	J		
C37 -40			CF92FV1H561J	MF	560PF	J		
C41 ,42			CF92FV1H682J	MF	6800PF	J		
C43 ,44			CK45FB1H222K	CERAMIC	2200PF	K		
C45 ,46			CF92FV1H682J	MF	6800PF	J		
C47 ,48			CK45FB1H222K	CERAMIC	2200PF	K		
C49 ,50			CF92FV1H683J	MF	0.068UF	J		
C101,102			CE04KW1V100M	ELECTRO	10UF	35WV		
C103			CE04KW1A101M	ELECTRO	100UF	10WV		
C104			CE04KW1C220M	ELECTRO	22UF	16WV		
C105			CE04HW1A220M	NP-ELEC	22UF	10WV		
C106			CF92FV1H103J	MF	0.010UF	J		
C107			CE04KW1H4R7M	ELECTRO	4.7UF	50WV		
C108			CE04KW1C330M	ELECTRO	33UF	16WV		
C109,110			CF92FV1H103J	MF	0.010UF	J		
C111,112			CE04KW1E221M	ELECTRO	220UF	25WV		
C113			CE04KW1V100M	ELECTRO	10UF	35WV		
C114			CE04KW1H330M	ELECTRO	33UF	50WV		
C115,116			CF92FV1H104J	MF	0.10UF	J		
C117,118	*		C90-3500-05	ELECTRO	10000UF	63WV		
C119			CK45FB2H103P	CERAMIC	0.010UF	P		
C121			CE04KW1V100M	ELECTRO	10UF	35WV		
C122			CF92FV1H103J	MF	0.010UF	J	ELYMXT	
J1			E20-0839-15	SCREW TERMINAL BOARD			EPYMXT	
J1			E70-0029-05	SCREW TERMINAL BOARD			L	
-			J11-0098-05	WIRE CLAMPER				
L1 ,2			L39-1318-05	PHASE COMPENSATION COIL				
R1 ,2			RS14DB3A822JTE	FL-PROOF RS	8.2K	J 1W		
R3 ,4			RD14AB2E221JTS	FL-PROOF RD	220	J 1/4W		
R5 ,6			RD14AB2E820JTS	FL-PROOF RD	82	J 1/4W		
R13 ,14			RD14AB2E181JTS	FL-PROOF RD	180	J 1/4W		
R19 -22			RD14AB2E391JTS	FL-PROOF RD	390	J 1/4W		
R23 -28			RD14AB2E101JTS	FL-PROOF RD	100	J 1/4W		
R29 -32			RD14AB2E821JTS	FL-PROOF RD	820	J 1/4W		
R33 ,34			RD14AB2E681JTS	FL-PROOF RD	680	J 1/4W		
R35 ,36			RD14AB2E4R7JTS	FL-PROOF RD	4.7	J 1/4W		
R37 -40			R92-0205-05	METAL-PLATE	0.1	K 2W		
R41 ,42			RD14AB2E271JTS	FL-PROOF RD	270	J 1/4W		
R43 ,44			RD14AB2E221JTS	FL-PROOF RD	220	J 1/4W		
R45 -48			R92-0205-05	METAL-PLATE	0.1	K 2W		
R49 -52			RD14AB2E4R7JTS	FL-PROOF RD	4.7	J 1/4W		
R53 ,54			RD14AB2E681JTS	FL-PROOF RD	680	J 1/4W		
R55 ,56			RD14AB2E101JTS	FL-PROOF RD	100	J 1/4W		
R57 ,58	*		RD14AB2E4R7JTS	FL-PROOF RD	4.7	J 1/4W		
R63 ,64			RS14GB3D100JKW	FL-PROOF RS	10	J 2W		
R65 ,66			RD14AB2E2R2JTS	FL-PROOF RD	2.2	J 1/4W		

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D26 ,27			1SS133	DIODE		
IC1			NJM4565D-D	IC(OP AMP X2)		
IC2			NJM4580D-D	IC(OP AMP X2)		
IC3			NJM4565D-D	IC(OP AMP X2)		
IC4			TC9163N	IC(BILATERAL SWITCH X16)		
IC5			UPD75104GF-778	IC(4BIT MICROPROCESSOR)		
IC6			PST529D	IC(SYSTEM RESET)		
Q1 ,2			2SC1740S(Q,R)	TRANSISTOR		
Q1 ,2			2SC3311A(Q,R)	TRANSISTOR		
Q3 ,4			DTA124ES	DIGITAL TRANSISTOR		
Q3 ,4			UN4112	TRANSISTOR		
A1			W02-1046-05	ELECTRIC CIRCUIT MODULE		

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CONTROL UNIT (X11-3112-70)								
D14 -19			B30-1291-05	LED				
D20			B30-1290-05	LED				
D21 -25			B30-1291-05	LED				
C3 -6			CF92FV1H224J	MF	0.22UF	J		
C7 ,8			CF92FV1H203J	MF	0.020UF	J		
C9 ,10			CF92FV1H683J	MF	0.068UF	J		
C11 ,12			CF92FV1H334J	MF	0.33UF	J		
C15 ,16			C90-1886-05	ELECTRO	4.7UF	25WV		
C17 ,18			CF92FV1H391K	MF	390PF	K		
C19 ,20			CF92FV1H154J	MF	0.15UF	J		
C21 ,22			CF92FV1H221K	MF	220PF	K		
C23 ,24			CF92FV1H101K	MF	100PF	K		
C25 ,26			CF92FV1H471J	MF	470PF	J		
C27 ,28			CF92FV1H102J	MF	1000PF	J		
C29 -34			CE04KW1H010M	ELECTRO	1.0UF	50WV		
C35 -38			CE04KW1C220M	ELECTRO	22UF	16WV		
C39 -42			CF92FV1H473J	MF	0.047UF	J		
C43 ,44			CE04KW1E101M	ELECTRO	100UF	25WV		
C45			CK45FF1H103Z	CERAMIC	0.010UF	Z		
C46			CC45FSL1H101J	CERAMIC	100PF	J		
C47 ,48			CF92FV1H102J	MF	1000PF	J		
C49			C90-1826-05	BACKUP	0.047F	5.5WV		
C50			CK45FF1H103Z	CERAMIC	0.010UF	Z		
C51			CE04KW1H0R1M	ELECTRO	0.1UF	50WV		
C52 ,53			CK45FB1H332K	CERAMIC	3300PF	K		
C55			CE04KW1V4R7M	ELECTRO	4.7UF	35WV		
C56			CE04KW1H010M	ELECTRO	1.0UF	50WV		
C57			CE04KW1A101M	ELECTRO	100UF	10WV		
C58			CE04KW1V4R7M	ELECTRO	4.7UF	35WV		
C64			CE04KW1A101M	ELECTRO	100UF	10WV		
C67			CK45FF1H103Z	CERAMIC	0.010UF	Z		
C68 ,69			CF92FV1H104J	MF	0.10UF	J		
J1			E11-0208-05	PHONE JACK				
			F10-0575-04	SHIELDING PLATE				
L3 ,4			L40-1021-14	SMALL FIXED INDUCTOR(1.0MH,K)				
X1			L78-0267-05	RESONATOR 4.194MHz				
R51 ,52			RS14DB3D221JTE	FL-PROOF RS 220	J	2W		
R53 ,54			RS14DB3D151JTE	FL-PROOF RS 150	J	2W		
R55 ,56			RS14DB3D221JTE	FL-PROOF RS 220	J	2W		
VR1			R06-5190-05	POTENTIOMETER				
VR2 ,3			R06-2025-05	POTENTIOMETER				
S1 -6			S40-1064-05	PUSH SWITCH				
S7			S60-0010-05	ROTARY SWITCH				
S8			S29-2035-05	ROTARY SWITCH				
S9			T99-0521-05	ROTARY ENCODER				
D1			HSS104A	DIODE				
D1			1SS131	DIODE				
D2 -13			HSS104	DIODE				
D2 -13			1SS133	DIODE				
D26 ,27			HSS104	DIODE				

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# KA-5050R

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R67 , 68			RD14AB2E330JTS	FL-PROOF RD 33	J 1/4W	
R69 , 70		*	RS14GB3D100JKW	FL-PROOF RS 10	J 2W	
R103			RS14DB3A561JTE	FL-PROOF RS 560	J 1W	
R106			RS14DB3A561JTE	FL-PROOF RS 560	J 1W	
R108			RS14DB3A332JTE	FL-PROOF RS 3.3K	J 1W	
R109			RS14DB3A103JTE	FL-PROOF RS 10K	J 1W	
R124			RD14AB2E472JTS	FL-PROOF RD 4.7K	J 1/4W	
R126			RS14DB3D122JTE	FL-PROOF RS 1.2K	J 2W	
R127			RS14DB3D561JTE	FL-PROOF RS 560	J 2W	
R128-132			RS14DB3D122JTE	FL-PROOF RS 1.2K	J 2W	
R133, 134			RS14DB3D102JTE	FL-PROOF RS 1.0K	J 2W	
VR1 -4			R12-1616-05	TRIMMING POT.(1K)		
K1 , 2			S51-2092-05	MAGNETIC RELAY		
K3		*	S76-0028-05	MAGNETIC RELAY		
D1 -12			HSS104	DIODE		
D1 -12			ISS133	DIODE		
D13 , 14			HSS104A	DIODE		
D13 , 14			ISS131	DIODE		
D15 , 16			HSS104	DIODE		
D15 , 16			ISS133	DIODE		
D21 -23			HSS104A	DIODE		
D21 -23			ISS131	DIODE		
D24			HZS5.1S(B2)	ZENER DIODE		
D24			RD5.1JS(B2)	ZENER DIODE		
D25			HSS104A	DIODE		
D25			ISS131	DIODE		
D26			HZS5.1S(B2)	ZENER DIODE		
D26			RD5.1JS(B2)	ZENER DIODE		
D27 , 28			HZS7.5S(B)	ZENER DIODE		
D27 , 28			RD7.5JS(B)	ZENER DIODE		
D29 , 30			HZS15S(B)	ZENER DIODE		
D29 , 30			RD15JS(B)	ZENER DIODE		
D31			D5FB20*1	DIODE		
D32 , 33			HSS104	DIODE		
D32 , 33			ISS133	DIODE		
IC1			UPC1237HA	IC(POWER AMP)		
IC2			NJM4565D-D	IC(OP AMP X2)		
Q1 -4			2SA992(F, E)	TRANSISTOR		
Q5 -8			2SA1124(R, S)	TRANSISTOR		
Q9 , 10			2SC2632(R, S)	TRANSISTOR		
Q11 -14			2SC3944(R, S)	TRANSISTOR		
Q15 -18			2SA1535(R, S)	TRANSISTOR		
Q19 , 20			2SA992(F, E)	TRANSISTOR		
Q21 -24			2SC1845(F, E)	TRANSISTOR		
Q31			2SA992(F, E)	TRANSISTOR		
Q32 , 33			2SA1110(Q, R)	TRANSISTOR		
Q34 , 35			2SD2012	TRANSISTOR		
Q34 , 35		*	2SD2061(E, F)	TRANSISTOR		
Q101, 102		*	2SJ200LBP4	FET		
Q103, 104		*	2SK1529LBP4	FET		
Q105, 106		*	2SJ200LBP4	FET		
Q107, 108		*	2SK1529LBP4	FET		
Q109, 110			2SC4137F19(V, W)	TRANSISTOR		

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## SPECIFICATIONS

## For U.S.A. and Canada

## Continuous rated power output (FTC)

80 watts per channel minimum RMS, both channels driven, at 8 Ω from 20 Hz to 20,000 Hz with no more than 0.04% total harmonic distortion.

Dynamic power ..... 110 W (8 Ω)  
180 W (4 Ω)

Damping factor ..... 220 (50 Hz)  
Total harmonic distortion ..... 0.04%

(20 Hz ~ 20,000 Hz, 80 W, 8 Ω)  
..... 0.002%

(1 kHz, 40 W, 8 Ω)

Intermodulation distortion ..... 0.002% (80 W, 8 Ω)  
(70 Hz : 7 kHz = 4 : 1)

Frequency response (IHF '78)  
TUNER/AUX/TAPE1, 2/CD  
..... 5 Hz ~ 100 kHz, +0 dB, -3 dB

PHONO 'RIAA' response ..... 20 Hz ~ 20 kHz,  
+0.3 dB, -0.3 dB

## Maximum input level

PHONO (MM) ..... 120 mV, 0.03% T.H.D. at 1 kHz  
PHONO (MC) ..... 10 mV, 0.03% T.H.D. at 1 kHz

## Signal to noise ratio

PHONO (MM) ..... 87 dB (IHF '66)  
79 dB (IHF '78)

PHONO (MC) ..... 68 dB (IHF '66)  
74 dB (IHF '78)

TUNER/AUX/TAPE1, 2/CD ..... 104 dB (IHF '66)  
80 dB (IHF '78)

## Input sensitivity/impedance

PHONO (MM) ..... 2.5 mV/47 kΩ  
PHONO (MC) ..... 0.2 mV/100 Ω

TUNER/AUX/TAPE1, 2/CD ..... 200 mV/47 kΩ  
ADAPTOR IN ..... 200 mV/47 kΩ

## Tone control

BASS ..... ±10 dB (at 100 Hz)  
TREBLE ..... ±10 dB (at 10 kHz)

## Filter

SUBSONIC filter ..... 18 Hz, -12 dB/oct

Loudness control  
(VOLUME at -30 dB level) ..... +6 dB (100 Hz)  
+3 dB (10 kHz)

## Output level/impedance

TAPE REC ..... 200 mV/300 Ω  
ADAPTOR OUT ..... 200 mV/300 Ω

## General

## Power consumption

For Canada ..... 3 A

For U.S. Military ..... 270 W

## AC outlets

For Canada  
SWITCHED ..... 3; (Total 200 W, 1.6 A max.)

For U.S. Military  
SWITCHED ..... 3; (Total 200 W max.)

Dimensions ..... W: 440 mm (17-5/16")  
H: 147 mm (5-13/16")  
D: 403 mm (15-7 / 8")

Weight (net) ..... 12 kg (26.5 lb)

## For U.K. and Europe

## Continuous rated power output

(DIN) 1 kHz, at 8 Ω ..... 95 W + 95 W

at 4 Ω ..... 140 W + 140 W

(IEC/NF) From 63 Hz to 12,500 Hz, 0.7% T.H.D.

at 8 Ω ..... 90 W + 90W

at 4 Ω ..... 135 W + 135 W

Dynamic power ..... 105 W (8 Ω)

175 W (4 Ω)

Damping factor ..... 220 (50 Hz)

Total harmonic distortion ..... 0.04%

(20 Hz ~ 20,000 Hz, 80 W, 8 Ω)

..... 0.002% (1 kHz, 40 W, 8 Ω)

Intermodulation distortion ..... 0.002% (80 W, 8 Ω)

(70 Hz : 7 kHz = 4 : 1)

Frequency response (IHF '78)

TUNER/AUX/TAPE1, 2/CD

..... 5 Hz ~ 100 kHz, +0 dB, -3 dB

PHONO 'RIAA' response ..... 20 Hz ~ 20 kHz,  
+0.3 dB, -0.3 dB

## Maximum input level

PHONO (MM) ..... 120 mV, 0.03% T.H.D. at 1 kHz

PHONO (MC) ..... 10 mV, 0.03% T.H.D. at 1 kHz

## Signal to noise ratio

PHONO (MM) ..... 87 dB (IHF '66)

79 dB (IHF '78)

PHONO (MC) ..... 68 dB (IHF '66)

74 dB (IHF '78)

TUNER/AUX/TAPE1, 2/CD ..... 104 dB (IHF '66)

80 dB (IHF '78)

PHONO (MM) ..... 58 dB (DIN, 50 mW output)

TUNER/AUX/TAPE1, 2/CD

..... 59 dB (DIN, 50 mW output)

## Input sensitivity/impedance

PHONO (MM) ..... 2.5 mV/47 kΩ

PHONO (MC) ..... 0.2 mV/100 Ω

TUNER/AUX/TAPE1, 2/CD ..... 200 mV/47 kΩ

ADAPTOR IN ..... 200 mV/47 kΩ

## Tone control

BASS ..... ±10 dB (at 100 Hz)

TREBLE ..... ±10 dB (at 10 kHz)

## Filter

SUBSONIC filter ..... 18 Hz, -12 dB/oct

## Loudness control

(VOLUME at -30 dB level) ..... +6 dB (100 Hz)

+3 dB (10 kHz)

## Output level/impedance

TAPE REC ..... 200 mV/300 Ω

ADAPTOR OUT ..... 200 mV/300 Ω

## General

## Power consumption

270 W (IEC)

## AC outlets

## For U.K.

SWITCHED ..... 2; (Total 200 W max.)

## For Europe

SWITCHED ..... 3; (Total 200 W max.)

Dimensions ..... W: 440 mm (17-5/16")

H: 147 mm (5-13/16")

D: 403 mm

Weight (net) ..... 12 kg

# KA-5050R

## SPECIFICATIONS

### For other countries

Continuous rated power output	
(IHF '66) From 20 Hz to 20,000 Hz 0.04% T.H.D.	
at 8 Ω .....	80 W + 80W
(IEC/NF) From 63 Hz to 12,500 Hz, 0.7% T.H.D.	
at 8 Ω .....	90 W + 90 W
at 4 Ω .....	135 W + 135 W
Dynamic power .....	105 W (8 Ω) 175 W (4 Ω)
Damping factor .....	220 (50 Hz)
Total harmonic distortion .....	0.04% (20 Hz ~ 20,000 Hz, 80 W, 8 Ω)
	..... 0.002% (1 kHz, 40 W, 8 Ω)
Intermodulation distortion .....	0.002% (80 W, 8 Ω) (70 Hz : 7 kHz = 4 : 1)
Frequency response (IHF '78)	
TUNER/AUX/TAPE1, 2/CD	5 Hz ~ 100 kHz, +0 dB, -3 dB
PHONO 'RIAA' response .....	20 Hz ~ 20 kHz, +0.3 dB, -0.3 dB
Maximum input level	
PHONO (MM) .....	120 mV, 0.03% T.H.D. at 1 kHz
PHONO (MC) .....	10 mV, 0.03% T.H.D. at 1 kHz
Signal to noise ratio	
PHONO (MM) .....	87 dB (IHF '66) 79 dB (IHF '78)
PHONO (MC) .....	68 dB (IHF '66) 74 dB (IHF '78)
TUNER/AUX/TAPE1, 2/CD .....	104 dB (IHF '66) 80 dB (IHF '78)

### Note:

KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be change without notice.

### Input sensitivity/impedance

PHONO (MM) .....	2.5 mV/47 kΩ
PHONO (MC) .....	0.2 mV/100 Ω
TUNER/AUX/TAPE1, 2/CD .....	200 mV/47 kΩ
ADAPTOR IN .....	200 mV/47 kΩ

### Tone control

BASS .....	±10 dB (at 100 Hz)
TREBLE .....	±10 dB (at 10 kHz)

### Filter

SUBSONIC filter .....	18 Hz, -12 dB/oct
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### Loudness control

(VOLUME at -30 dB level) .....	+6 dB (100 Hz) +3 dB (10 kHz)
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### Output level/impedance

TAPE REC .....	200 mV/300 Ω
ADAPTOR OUT .....	200 mV/300 Ω

### General

Power consumption .....	270 W
AC outlet	
For Australia	
SWITCHED .....	1; (200 W max.)
For other countries	
SWITCHED .....	3; (Total 200 W max.)
Dimensions .....	W: 440 mm H: 147 mm D: 403 mm
Weight (net) .....	12 kg

## KENWOOD CORPORATION

Alive Mitake, 2-5, 1-chome Shibuya, Shibuya-ku, Tokyo 150, Japan

### KENWOOD U.S.A. CORPORATION

P.O. BOX 22745, 2201 East Dominguez St., Long Beach, CA 90810 U.S.A.  
550 Clark Drive, Mount Olive, New Jersey 07828, U.S.A.  
99-994 Iwane St. Aiea, Hawaii 96701

### KENWOOD ELECTRONICS CANADA INC.

6070 Kestrel Road, Mississauga, Ontario, Canada L5T 1S8

### KENWOOD ELECTRONICS LATIN AMERICA S.A.

P.O. BOX 55-2791, Piso 6 Plaza Chase, Cl. 47 y Aquilino de la Guardia, Panama Republic de Panama

### TRIO-KENWOOD U.K. LIMITED

KENWOOD House, Dwight Road, Watford, Herts, WD1 8EB United Kingdom

### KENWOOD ELECTRONICS BENELUX N.V.

Mechelsesteenweg 418 B-1930 Zaventem, Belgium

### KENWOOD ELECTRONICS DEUTSCHLAND GMBH

Rembrücke Str. 15, 6056 Heusenstamm, Germany

### TRIO-KENWOOD FRANCE S.A.

13 Boulevard Ney, 75018 Paris, France

### KENWOOD LINEAR S.p.A.

20125, Milano-Via Arbe, 50, Italy

### KENWOOD ESPAÑA S.A.

Bolivia, 239-08020 Barcelona, Spain

### KENWOOD ELECTRONICS AUSTRALIA PTY. LTD. (A.C.N. 001 499 074)

P.O. BOX 504, 8 Figtree Drive, Australia Centre, Homebush, N.S.W. 2140, Australia

### KENWOOD & LEE ELECTRONICS, LTD.

Unit 3712-3724, Level 37 Tower 1, Metropiazza, 223 Hing Fong Road, Kwai Fong, T. Hong Kong

### KENWOOD ELECTRONICS SINGAPORE PTE LTD

No. 1 Genting Lane # 07-00, Singapore, 1334

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Kenwood poursuit une politique de progrès constants en ce qui concerne le développement.  
Pour cette raison, les spécifications sont sujettes à modifications sans préavis.

Kenwood strebt ständige Verbesserungen in der Entwicklung an.  
Daher bleiben Änderungen der technischen Daten jederzeit vorbehalten.